

Accuracy assessment of aerial triangulation using different format of aerial photograph and digital photogrammetric software

Abstract

The advancement in digital photogrammetry has made photogrammetric technique become simpler, faster and lower cost. This method is popular in covering large and small area. This paper discusses about the experience of processing a strip of large format aerial photographs and two strips of small format aerial photographs using different digital photogrammetric software. The study area covered is the area of Universiti Teknologi Malaysia main campus and its surrounding area. Secondary data of ground control points and check points established using rapid static technique of GPS were used. In this study, two digital photogrammetric softwares were used for image processing and produce several photogrammetric output such as aerial triangulation, DTM and digital orthophoto. Two types of analysis were carried out that are point and visual analysis. The results showed that the large format aerial photograph produces more accurate compared to small format aerial photograph. Also it was found that the results of one of the digital photogrammetric software is superior that the other software. This study proved that digital photogrammetry can be utilised to process large and small format aerial photograph at sub-meter accuracy.